

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Name : ReduClean

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only  
Use of the substance/mixture : Detergent to clean removable greenhouses coatings.

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Mardenkro B.V.  
Geerstraat 8  
5110 AG Baarle-Nassau - Nederland  
T +31 (0) 13 507 7069 - F +31 (0) 13 507 7343  
[Info@mardenkro.com](mailto:Info@mardenkro.com) - [www.mardenkro.com](http://www.mardenkro.com)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
UNITED KINGDOM	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Met. Corr. 1 H290  
Skin Corr. 1A H314  
Full text of H-phrases: see section 16

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger  
Hazardous ingredients : sodium hydroxide, caustic soda  
Hazard statements (CLP) : H290 - May be corrosive to metals  
H314 - Causes severe skin burns and eye damage  
Precautionary statements (CLP) : P260 - Do not breathe vapours, mist, spray  
P264 - Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work thoroughly after handling  
P280 - Wear protective gloves, protective clothing, face protection, eye protection  
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

#### 2.3. Other hazards

No additional information available

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according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sodium dodecylbenzenesulfonate	(CAS No) 25155-30-0 (EC no) 246-680-4	1-2.5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
sodium hydroxide, caustic soda	(CAS No) 1310-73-2 (EC no) 215-185-5 (EC index no) 011-002-00-6	0.5-2	Skin Corr. 1A, H314
Sodium p-cumenesulphonate	(CAS No) 15763-76-5 (EC no) 239-854-6	1-2.5	Eye Irrit. 2, H319

Full text of H-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Assure fresh air breathing. Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Rinse opened eye for several minutes under running water. Then consult doctor. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Drink plenty of water. Get medical advice/attention. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after skin contact	: Skin irritation. Symptoms/injuries after skin contact. Redness, pain. Causes skin irritation.
Symptoms/injuries after eye contact	: May cause eye irritation. Symptoms/injuries after eye contact. Pain. Redness. Blurred vision. Causes serious eye irritation.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Extinguishing powder. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: High power water jet. Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Self-contained breathing apparatus. Protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Provide adequate ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid all contact with skin, eyes, or clothing. Wear suitable protective clothing. Warning! Product may cause floors to be slippery.
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##### 6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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according to Regulation (EC) No. 1907/2006 (REACH)

### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.  
Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Do not allow uncontrolled leakage of product into the environment. Dilute with a large quantity of water. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Clean up any spills as soon as possible, using an absorbent material to collect it. Use suitable disposal containers.  
Methods for cleaning up : Wash away spilled liquid with plenty of water. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### 6.4. Reference to other sections

Reference to other sections (8, 13). See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not mix with other chemicals. Do not drink, eat or smoke in the workplace. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.  
Hygiene measures : Wash Hands and forearms, Skin thoroughly after handling.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Keep in a cool place. Keep out of frost. Store in original container. Keep only in the original container in a cool well ventilated place. Keep container closed when not in use.  
Incompatible products : Acids. Oxidizing agents. Strong bases. Strong acids.  
Incompatible materials : Sources of ignition. Direct sunlight.  
Packaging materials : Suitable material: Polyethylene. Stainless steel. Unsuitable materials: Tin. Lead. Copper (Cu). Avoid aluminium, magnesium and zinc.

### 7.3. Specific end use(s)

No specific measures are necessary.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Additional information : DNEL value of 110 mg/m<sup>3</sup> is based on the content of sodium hydroxide.

### 8.2. Exposure controls

Personal protective equipment : Combined gas/dust mask with filter type B/P2. Corrosionproof clothing. Gloves. Protective goggles. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and at the end of work. Avoid all unnecessary exposure.  
Hand protection : Nitrile: penetration time > 480', thickness > 0.35 mm. Chemical resistant PVC gloves (to European standard EN 374 or equivalent). PVC: penetration time > 480', thickness > 0.35 mm; Butylrubber: penetration time > 480', thickness > 0.5 mm; Natural rubber: penetration time > 480, thickness > 0.5 mm. Wear protective gloves  
Eye protection : Wear eye protection/face protection. Chemical goggles or safety glasses  
Skin and body protection : Wear shoes (boots) of Neoprene. Corrosionproof clothing. Wear suitable protective clothing  
Respiratory protection : Avoid inhalation of vapours. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Combined gas/dust mask with filter type B/P2. Wear appropriate mask



Other information : Do not get in eyes, on skin, or on clothing. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

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according to Regulation (EC) No. 1907/2006 (REACH)

Colour	: colourless to slightly yellow.
Odour	: characteristic.
Odour threshold	: No data available
pH	: 13
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: not determined
Flammability (solid, gas)	: Non flammable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1,1 g/cm <sup>3</sup>
Solubility	: completely soluble.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 1600 mPa.s Brookfield LV, spindle 3, 5 rpm, 20°C
Explosive properties	: None.
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

Other properties : None.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with : Acids. ammonium salts. halogenated hydrocarbons. nitrogen compounds.

### 10.2. Chemical stability

Stable under normal conditions. Not established.

### 10.3. Possibility of hazardous reactions

ammonium salts. Reacts with most metals in the presence of moisture, liberating hydrogen, an extremely flammable gas. Not established.

### 10.4. Conditions to avoid

Avoid high temperatures. Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Oxidizing agents. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Carbon oxides (CO, CO<sub>2</sub>). Sulphur dioxide. fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

#### Sodium dodecylbenzenesulfonate (25155-30-0)

LD50 oral rat	438 mg/kg
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#### Sodium p-cumenesulphonate (15763-76-5)

LD50 oral rat	> 7200 mg/kg
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Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 13
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 13
Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met

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Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met

<b>ReduClean</b>	
Viscosity, kinematic	1454,54545455 mm <sup>2</sup> /s

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

<b>Sodium dodecylbenzenesulfonate (25155-30-0)</b>	
LOEC (acute)	5,6 mg/l Oncorhynchus kisutch
NOEC (acute)	3,1 mg/l Oncorhynchus kisutch
<b>Sodium p-cumenesulphonate (15763-76-5)</b>	
EC50 Daphnia 1	100 mg/l

#### 12.2. Persistence and degradability

<b>ReduClean</b>	
Persistence and degradability	Product is biodegradable. Not established.

#### 12.3. Bioaccumulative potential

<b>ReduClean</b>	
Bioaccumulative potential	No indication of bio-accumulation potential. Not established.
<b>Sodium dodecylbenzenesulfonate (25155-30-0)</b>	
BCF fish 1	0,064 mg/l Lepomis Macrochirus
Bioconcentration factor (BCF REACH)	220

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

Additional information : Avoid release to the environment

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Contaminated packing must be completely emptied and can be re-used following appropriate cleaning. This container is intended only for this product. Containers, or internal liners coming from a container, having contained this product are also considered as hazardous wastes. Empty containers can be dumped according to local legislation.
Ecology - waste materials	: Avoid release to the environment.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR)	: 1824
UN-No. (IMDG)	: 1824
UN-No.(IATA)	: 1824
UN-No.(ADN)	: 1824
UN-No. (RID)	: 1824

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## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: SODIUM HYDROXIDE SOLUTION
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
Transport document description (ADR)	: UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III, (E)
Transport document description (IMDG)	: UN 1824, 8, III

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR)	: 8
Danger labels (ADR)	: 8



#### IMDG

Transport hazard class(es) (IMDG)	: 8
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#### IATA

Transport hazard class(es) (IATA)	: 8
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#### ADN

Transport hazard class(es) (ADN)	: 8
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#### RID

Transport hazard class(es) (RID)	: 8
Danger labels (RID)	: 8



### 14.4. Packing group

Packing group (ADR)	: III
Packing group (IMDG)	: III
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR)	: C5
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Hazard identification number (Kemler No.)	: 80

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## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Orange plates

:



Tunnel restriction code (ADR)

: E

EAC code

: 2R

### - Transport by sea

MFAG-No

: 154

### - Air transport

No data available

### - Inland waterway transport

Not subject to ADN

: No

### - Rail transport

Carriage prohibited (RID)

: No

## 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this preparation were not carried out

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:

Revision : \*

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Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Training advice

: Normal use of this product shall imply use in accordance with the instructions on the packaging and in line with the expectations of a professional user.

Other information

: REACH Disclaimer:  
This information is based on current knowledge. Consistency of data in the SDS with CSR is considered, as far as the information is available at the time of compilation (cfr Revision date and Version number). **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. None.

Full text of H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A

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according to Regulation (EC) No. 1907/2006 (REACH)

Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*